MARINE CORPS
WARFIGHTING LABORATORY

Ground Expedient Refueling System (GERS)

fact sheet

Purpose:
The Ground Expedient Refueling System (GERS) will provide a means by which to distribute fuel under expeditionary forward operating conditions. The objective of GERS is two-fold; 1) to provide forward operating units with emergent fuel sufficient to either; (a) prevent an operational delay at a critical point in the mission, and (b) provide resupply of fuel to units/vehicles that can not otherwise be supported with existing assets, and 2) to supplement current capabilities in the transfer of fuel and other bulk liquids from the sea base to designated points ashore.

Background:
Although bulk petroleum is a common item of support, it presents one of the most significant logistics challenges in its movement, storage, and distribution. U.S. military operations have become increasingly more mobile relying more and more on the principles of maneuver warfare to achieve the desired objective. Providing forces with the right fuel, in the right place, and at the right time can spell the difference between success and failure. Existing in the inventory today are numerous bulk liquid storage and distribution systems. However, none of these current systems are specifically configured to support highly mobile operations extending over large distances. The GERS is ideally suited to support forward operating units that cannot be supported by conventional means. The GERS provides operational forces with an added dimension for sustaining highly mobile and flexible operations, while maintaining a safe, reliable, and responsive means to refuel equipment. The GERS will provide maneuver units and isolated sites with the means to both *extend* the range and/or operating time of their vehicles, equipment, and weapon systems, and *eliminate* the need to break contact once engaged for the purposes of refueling.

Requirement:
The GERS will have the capability to be used either on a host-vehicle or as a stand-alone system and is air transportable. The System will have a requirement to be interoperable with all current and planned Tactical Fuels Systems and ground refueling equipment used in the Marine Corps inventory.

Description:
GERS is a modular fuel dispensing system for use as forward refueling points. Based on its design, it allows for extended vehicle ranges and extended operating times. It is a tailorable modular fuel system that can be applied for a specific mission or a specific vehicle. What makes this system unique from other fuel systems is that it requires no MOS qualified operator. GERS is geared towards unit level fuel distribution and remote refueling.

The medium system consists of four 160 gallon bladders with all ancillary components to simultaneously refuel two separate vehicles, or can be tailored for a specific mission (capable of being divided between vehicles or locations). The small system consists of six 28 gallon bladders with all ancillary components to simultaneously refuel four separate vehicles, or can be tailored for a specific mission (capable of being divided between vehicles or locations).

Concept of Experimentation:
Evaluate GERS CONOPS and assess the advantages and/or disadvantages in support of Ship to Objective Maneuver (STOM) operations. This will be accomplished through a Limited Objective Experiment (LOE).

Deliverable Product:
Report to the Deputy Commandant, Combat Development that summarizes experiment results in terms of form factor, performance characteristics, suggested tactics, techniques and procedures (TTPs), and degree that the system supports STOM.

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